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ABSTRACT

The relationships that exist between perceived teacher behaviors and the achievement of selected secondary students in Virginia, and the relationships that exist between perceived teacher behaviors and curriculum type were determined. Additionally, the relationship between sets of teacher behaviors and achievement were investigated. Five categories of teacher behaviors were examined: caring, respect, interpersonal contact, course organization, and learning environment. The first two represented (I-Type) invitational behaviors and the last three represented (E-Type) effective behaviors. Each behavior was tested to see its relationship to achievement. Achievement was represented by an actual component, the grade, and a perceived component, reported effort and reported learning. Answers to the following were sought: (1) relationships among perceived I- and E-Type teacher behaviors; (2) relationships between perceived teacher behaviors and student grades, reported student learning, reported student effort, curriculum type; and (3) relationships between sets of perceived teacher behaviors and grades, learning, and effort. It was concluded that the best single predictor of actual and perceived achievement was caring; by combinations of E- and I-Type behaviors caring and course organization were the best predictors; and multiple combinations of teacher behaviors were best predicted by learning environment, caring, and interpersonal contact. (Author/GK)

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TEACHER INVITATIONS AND EFFECTIVENESS

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INTRODUCTION

For years educational researchers have tried to determine "what makes a difference?" in the schooling of children. They have asked, "what school factors have the greatest influence on student achievement?" Coleman reported, that although variations in school facilities, curriculum, and staff, had little effect on achievement independent of family background, the teacher's characteristics, not the facilities or curriculum, have the greatest influence on student achievement.[1]

This statement increased the desire of researchers to further investigate the question "What makes an effective teacher?" Researchers have tried varying approaches to answer this question. Behaviorists have tried to identify teacher behaviors that are systematically and causally related to student achievement. Cognitive psychologists have studied the mental processes thought to guide and determine teacher behavior. Ethnographers have described and interpreted life in classrooms in terms of the social context, while others have tried to determine what types of instructional treatments

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[1]Coleman, James S., "Equality of Educational Opportunity," Washington, D.C.: United States Government Printing Office, 1966.

are most effective with different types of students.[2]

Early researchers set out to isolate the characteristics that differentiated more effective teachers from less effective ones by having students describe effective teachers they had known. Lists of traits perceived to be associated with effective teachers were compiled. Four characteristics identified by students were: "makes greater demands of students," "has more teaching skill," "has more knowledge of subject matter," and "has better discipline."[3] Although this kind of research was limited in its scope and methodology, these same characteristics have been identified by more sophisticated research studies.

As early as 1930, Barr and others proposed the use of measured pupil gain as a criterion of effective teaching. Many years later this proposal became reality in the form of process-product research which dealt with behaviors that comprised "teaching styles." Behaviors, as used in process-product research, focused on specific things that teachers did consistently. These patterns of behaviors distinguished effective teaching from ineffective teaching. Effective-behavior patterns identified by process-product research included: clarity, enthusiasm, criticism, teacher

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[2]Clark, Christopher M., "Five Faces of Research on Teaching," Educational Leadership, Vol. 37, No. 1 (October, 1979), p. 29.

[3]Medley, Donald M., "The Effectiveness of Teachers," Research on Teaching: Concepts, Findings, and Implications, eds. P.L. Peterson and H.G. Walberg (Berkeley, California: McCutchan, 1979), p. 13.

indirectness, use of structuring comments, variability, task-oriented, and student opportunity to learn criterion materials.[4]

Researchers later investigated effectiveness in terms of competencies. Competencies, unlike behavior patterns, are used under varying circumstances depending on their appropriateness, rather than on a continuous basis. Brophy and Good asserted that underlying the problem of identifying effective teacher attributes or behaviors is the notion of appropriateness. Appropriateness will depend on the individual teacher's educational objectives and such factors as student age and the level of student preparation.[5]

In the last decade, Purkey associated effective teaching with the ability of teachers to build positive self-concepts in their students. He accepted the assumptions that (1) we behave according to our beliefs and (2) that teachers' beliefs about themselves and their students are crucial factors in determining their effectiveness in the classroom.[6] This self-concept approach to teaching, invitational teaching, requires specific teacher skills to build positive self-concepts. They are (1) reaching each student, (2) listening with care, (3) being real with students, (4)

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[4]Ibid., p. 14.

[5]Good, Thomas L. and Brophy, Jere E., Teacher-Student Relationships: Causes and Consequences, New York: Holt, Rinehart, and Winston, 1974, p. 1.

[6]Purkey, William W. Self-Concept and School Achievement, Englewood Cliffs, N.J.: Prentice-Hall, 1970, p. 45.

being real with oneself, (5) inviting good discipline, (6) handling rejection, and (7) inviting oneself.[7]

In 1980, the only research study listed in the ERIC System under invitational teaching, was a study conducted by Inglis. The purpose of the study was three-fold: "(1) to develop and validate an instrument to measure student reports of perceived teacher invitations and perceived teacher behaviors traditionally considered effective by authorities, (2) to subject the instrument to statistical procedures for validation, and (3) to correlate identified invitational (I-Type) factors and effective (E-Type) factors with academic achievement, as determined by student reports of grades earned, how hard they worked and how much they learned."[8] Inglis' study contributed an instrument that identified five teacher behaviors that were significantly related to academic achievement: "Caring," "Respect," "Course Organization," "Interpersonal Contact," and "Learning Environment," which were extrapolated from the existing effectiveness research and Purkey's work.[9]

Brophy summarized the current status of effectiveness

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[7]Purkey, William W. Inviting School Success: A Self-Concept Approach to Teaching and Learning, Belmont, California: Wadsworth Publishing Co., Inc., 1978, p. 45.

[8]Inglis, Sandra, "The Development and Validation of an Instrument to Assess Teacher Invitations and Teacher Effectiveness as Reported by Students in a Technical and General Post-Secondary Educational Setting," 1978, Paper Presented at A.E.R.A. Meeting, p. 4.

[9]Ibid., p. 84.

research as having two major trends. Following the trend which features:

> "integration of existing correlational findings and probing of the limits of their generalization to contexts beyond basic skills instruction in the elementary grades."[10]

This study investigated relationships between perceived effective and invitational behaviors and student achievement at the secondary level.

PURPOSE OF THE STUDY

The main purpose of the study was to determine the kinds of relationships that exist between perceived teacher behaviors and the achievement of selected secondary students in Virginia and the kinds of relationships that exist between perceived teacher behaviors and curriculum type. Additionally the relationship between sets of teacher behaviors and achievement were investigated.

Five categories of teacher behaviors were examined: 1) Caring, 2) Respect, 3) Interpersonal Contact, 4) Course Organization, and 5) Learning Environment. The first two represented (I-Type) invitational behaviors and the last three represented (E-Type) effective behaviors. Each behavior was tested to see if it was related to achievement. For the purposes of this study, achievement was represented

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[10]Brophy, Jere E., "Teacher Behavior and Student Learning," Educational Leadership, Vol 37, No. 1 (October, 1979), p. 34.

by an actual component, the grade, and a perceived component, reported effort and reported learning.

This study sought to answer the following questions:

1. Are there any relationships among perceived I-Type and E-Type teacher behaviors?
2. Are there any relationships between perceived teacher behaviors and student grades?
3. Are there any relationships between perceived teacher behaviors and reported student learning?
4. Are there any relationships between perceived teacher behaviors and reported student effort?
5. Are there any relationships between perceived teacher behaviors and curriculum type?
6. Are there any relationships between sets of perceived teacher behaviors and grades, learning, and effort?

SIGNIFICANCE OF THE STUDY

It was found in the literature that a need for further clarification of the enigmatic answer to the question "What makes an effective teacher?" The characteristics, skills, and behaviors that enhance the teaching process, though already studied extensively, need to be remeasured from various perspectives using techniques that will yield more definitive information about effectiveness.

The lack of research in the area of invitational teaching signified a tremendous need for exploratory and in-depth research into (1) the relatedness of inviting behaviors to effectiveness, (2) the relatedness of inviting behaviors to achievement, and (3) the relatedness of inviting behaviors to the teaching of specific courses at various grade levels.

DEFINITION OF TERMS

The following terms were defined according to their specific use in this study:

IN-Scale

The IN-Scale referred to Inglis' 50 item instrument, which is divided into five teacher behavior factors, Caring, Respect, Course Organization, Interpersonal Contact, and Learning Environment, to measure both inviting and effective teaching.

Effective Teaching

Effective teaching referred to teaching which traditionally has been proven to influence student achievement. It has been characterized in the literature as including the use of behavioral objectives, careful lesson planning, an organized learning environment, proper application of learning theory, a democratic teaching style, an efficient presentation of subject matter, flexibility in the teaching situation, the use of fair and objective evaluation procedures, and the production of immediate short-term gains.

Inviting Teaching

Inviting teaching referred to Purkey's concept of teaching to build positive self-concepts in students and thus improve student achievement. This type of teaching was characterized by the teacher's ability to reach each student, listen with care, be real with students, be real with oneself, invite good discipline, handle rejection and to invite oneself.

I-Type Behaviors

I-Type Behaviors referred to inviting teacher behaviors measured by Factor I, Caring and Factor II, Respect on the IN-Scale.

E-Type Behaviors

E-Type Behaviors referred to effective teacher behaviors measured by Factor III, Course Organization, Factor IV, Interpersonal Contact and Factor V, Learning Environment on the IN-Scale.

Student Achievement

Student achievement referred to both actual achievement as measured by grades earned and perceived achievement as measured by reported student effort and perceived student learning in the course taken.

Curriculum Type

Curriculum Type referred to the kind of courses taught, academic (English, social studies, etc.) or technical (nursing, cosmetology, etc.), by teachers within the high school.

FINDINGS AND IMPLICATIONS

Statistical evidence was provided to indicate that positive relationships existed: (1) among I-Type and E-Type teacher behaviors, (2) between those behaviors and student achievement and (3) between perceived teacher behaviors and curriculum type. (See Summary Tables 23 and 24 taken from the doctoral study.)

Table 23

Summary of Stated Null Hypotheses
One-Six

Hypotheses		Statistical Test Used	Correlation Interval	Rejected or Not Rejected at .05 Level
There are no statistically significant linear relationships:				
HO_1	among I-Type and E-Type behaviors (C,R,CO,IC,LE)*	Pearson Correlation	r=.44 to .73	Rejected
HO_2	between perceived teacher behaviors and student grades	Pearson Correlation	r=.23 to .41	Rejected
HO_3	between perceived teacher behaviors and perceived learning	Pearson Correlation	r=.35 to .54	Rejected
HO_4	between perceived teacher behaviors and reported effort	Pearson Correlation	r=.04 to .21	Rejected
HO_5	between perceived teacher behaviors and curriculum type	Pearson Correlation	r=.13 to .34	Rejected
HO_6	between sets of perceived teacher behaviors and grades, learning, and effort	Stepwise Multiple Regression	R=.21 to .58	Rejected

C=Caring, R=Respect, CO=Course Organization, IC=Interpersonal Contact, LE=Learning Environment

Table 24

Summary of Subsequent Null Hypotheses One-Six

Hypotheses		Statistical Test Used	Correlation Coefficients	Rejected or Not Rejected at .05 Level
There are no statistically significant linear relationships:				
HO_1	among I-Type and E-Type behaviors (C,R,CO,IC,LE) for curricula with E and I-Type behaviors, E-Type only, I-Type only	Pearson Product-Moment Correlation	r=.44 to .73 r=.52 to .73(E) r=.44 to .67(I)	Rejected
	for Academic Curriculum with each teacher behavior		r=.46 to .71 r=.54 to .71(E) r=.46 to .63(I)	Rejected
	for technical curriculum with each teacher behavior		r=.33 to .79 r=.42 to .79(E) r=.33 to .73(I)	Rejected
HO_2	between perceived teacher behaviors and student grades for curriculum with each teacher behavior	Pearson Product-Moment Correlation	r=.23 to .41 r=.41(C) r=.23(LE & CO)	Rejected
	for academic curriculum with each teacher behavior		r=.18 to .38 r=.18(LE) r=.38(C)	Rejected
	for technical curriculum with each teacher behavior		r=.17 to .45 r=.17(CO) r=.45(C)	Rejected (CO)[a]

Table 24 (continued)

Hypotheses		Statistical Test Used	Correlation Coefficients	Rejected or Not Rejected at .05 Level
HO_3	between perceived teacher behaviors and perceived learning for curriculum with each teacher behavior	Pearson Product-Moment Correlation	r=.35 to .54 r=.54(C) r=.35(IC)	Rejected
	for academic curriculum with each teacher behavior		r=.30 to .58 r=.58(C) r=.30(CO)	Rejected
	for technical curriculum with each teacher behavior		r=.31 to .48 r=.48(CO) r=.31(IC)	Rejected
HO_4	between perceived teacher behaviors and reported effort for curriculum with each teacher behavior	Pearson Product-Moment Correlation	r=.04 to .21 r=.21(CO) r=-.04(IC)	Rejected (IC,R,C)[a]
	for academic curriculum with each teacher behavior		r=.06(R,IC) to .28(C)	Rejected (R,IC)[a]
	for technical curriculum with each teacher behavior		r=.09 (IC) to .19(CO)	Rejected (C,R,IC,LE)[a]
HO_5	between perceived teacher behaviors and curriculum type for all students with teacher behavior, E-Type only (C,R), I-Type only (C),LE,CO)	Pearson Product-Moment Correlation	r=.13 to .34 r=.19(R) & .34(C) r=.13(IC), .18(CO), .20(LE)	Rejected

Table 24 (continued)

Hypotheses		Statistical Test Used	Correlation Coefficients	Rejected or Not Rejected at .05 Level
HO_6	between sets of perceived teacher behaviors and grades, learning and effort for all behaviors	Stepwise Multiple Regression	R=.41(C), .44(R) .45(LE) R=.54(C), .57 (LE), .58(IC) R=.21(CO), .26 (IC), .29(LE)	Rejected
	for I-Type behaviors only (C,R)		R=.41(C) & .44(R) R=.58 only R=no set	Rejected (Learning)[a]
	for E-Type behaviors only (CO,LE,CO)		R=.45 only no set R=.57(LE) & .58 (IC) R=.21(C), .26 (IC), .29(LE)	(Grades)[a] Rejected

C=Caring, R=Respect, CO=Course Organization, IC=Interpersonal Contact
LE=Learning Environment

[a]HO not rejected p>.05

CONCLUSIONS AND RECOMMENDATIONS

The following conclusions can be drawn from the data reported in this study. In terms of predicting actual and perceived achievement: (a) the best single predictor was Caring, (b) by combinations of E and I-Type behaviors the best predictors were Caring and Course Organization, and (c) the multiple combinations of perceived teacher behaviors were best predicted by Learning Environment, followed by Caring and then Interpersonal Contact.

The fact that Respect did not emerge as a single significant predictor can be attributed to its high correlation with Caring, $r=.71$ ($p<.001$), therefore suggesting possible overlap between these behaviors. In the Inglis study Caring and Respect were correlated with an r of .67 ($p<.001$) with only Interpersonal Contact surpassing their relationship with an r of .71 ($p<.001$).

The investigator recommends that further research be conducted to clarify the relationships of teacher behaviors to student achievement. The contradictions mentioned above justify further study. It is recommended that if the quantitative approach is used to further investigate the problem, that at least two measures of teacher performance be used, possible self-report and student report. The IN-Scale, if used again, should be broadened to include other behaviors from the invitational approach to teaching.

The investigator recommends that a qualitative approach (i.e. ethnography) be utilized to re-investigate

the present hypotheses and that these results be compared for corroborations and contradictions. It would seem that this approach could facilitate the interpretation of interactions between teachers and students, as well as, the impact of the interactions on student achievement.

Additional studies could be undertaken to investigate teacher behaviors at the middle and elementary level. The variables of race and sex could be added to address the problems of racism and sexism in classrooms. Studies could also investigate specific ways to increase inviting behaviors, so teachers could find out both the desireable behaviors and the best way to develop them.

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